

Date: Sat, 3 Apr 93 00:33:34 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #414
To: Info-Hams

Info-Hams Digest Sat, 3 Apr 93 Volume 93 : Issue 414

Today's Topics:

 "CB transplants"
A friend of mine, with an independent dealer, network is seeking
 A New DSP
ARRL living in the past? (was Re: motive ...)
 CTCSS usage on an Azden PCS 4000
 Kantronics vs MFJ Opinions?
Request: Modification instructions for Radio Shack HTX-202.
 RFD [rec.radio.amateur reorg]
 SPACE BULLETIN 012 ARLS012
 SPACE BULLETIN 013 ARLS013
UHF broadcasting. (was: DESPERATE...NEED TO KNOW FACTS CONCERN)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 02 Apr 93 10:49:36 CST
From: news.acns.nwu.edu!nucsrl!gagme!precipice!ant-vent@network.UCSD.EDU
Subject: "CB transplants"
To: info-hams@ucsd.edu

mikef@pacifier.rain.com (Mike Freeman) writes:

> In article <12182@news.duke.edu> jbs@ee.egr.duke.edu (Joe B. Simpson) writes:
> >
> >Okay, here's a little quiz. How many of you *never* used a CB before
> >becoming a ham?
>

> Aye ... I never *heard* of CB before becoming a ham (1962).
> >
> >The rest of you, hang your heads in shame; you're "CB transplants."
>
> Your point is well-taken. However, remember that there are
> *some* of us old enough to remember when CBers at least used
> FCC-issued callsigns part of the time and stuck to the power
> limits and antenna restrictions. That period wasn't long, though!
> {grin}. In any event, I never touched a CB until I'd been a ham
> for thirteen years.
> >
> --
> Mike Freeman <K7UIJ> | Internet: mikef@pacifier.rain.com
> 301 N.E. 107th Street | UUCP: uunet!m2xenix!nipple!pacifier!mikef
> Vancouver, WA 98685 USA | GENie: M.FREEMAN11
> Telephone (206)574-8221 | Pushing 40 is exercise enough!

And then there are those of who got our licenses before there was such a thing as the chicken band (that was the "in" term for those who were chicken to go to the FCC office and sweat blood in front of the steely-eyed examiner). Class D didn't exist until 1958.

Date: 3 Apr 93 04:08:32 GMT
From: swrinde!zaphod.mps.ohio-state.edu!uwm.edu!spool.mu.edu!olivea!bu.edu!acs.bu.edu!schin@network.UCSD.EDU
Subject: A friend of mine, with an independent dealer, network is seeking
To: info-hams@ucsd.edu

Hello

A friend of mine, who has assembled an independent dealer network, considers ham radio items to be extremely popular among his customers. Is anyone out there a source for such items, or know of a place that is?

Regards
Neil Schier

Date: Fri, 2 Apr 1993 14:47:27 GMT
From: news.acns.nwu.edu!nucsr1!tellab5!jwa@network.UCSD.EDU
Subject: A New DSP
To: info-hams@ucsd.edu

In case your interested in DSP's Here is an article that I wrote, that appeared in the January 92 issue of QEX

A NEW DSP FOR PACKET

In the early 70's synthesized radios became available to the Amateur market. However, the technology wasn't new. The Military used synthesized radios since the early 60's. The computer and micro-processor became popular in the mid 70's and that got us into the packet age in the 80's. But we all know that electronic computers where around for about 25 years. In the 90's, it appears that the hottest item is the DSP. Again the technology has been around for about twenty years and it's finally making it's way into the Ham Radio market. As with any new technology the reason for it's availability is cost reduction due to large scale integration.

Manufactures of Ham gear are including DSP's in their products and there is a little skepticism about the price! Is it really worth the three or four hundred more dollars just to clean up a few harmonics in my signal? How can it improve packet reception on HF? Will I have sell my old gear ? After being involved in a DSP development project I beleive that the DSP can make a significant improvement in HF packet and RTTY reception and it's well worth the investment.

For the about the past 7 years the DSP has been reduced to a single chip about the size of the microprocessor in your computer. In fact, the DSP is nothing more than a microprocessor. A very special processor that can handle mathematical computations at lightening speeds. The DSP that I'm involved with runs on a 40 mHz clock and Texas Instruments now has a version that runs at 50 mHz.

Like any new technology the price is always high at first. But when newer chips are developed, the old ones drop in price. That's true with the TexasInstruments TMS320C25 DSP. When it was first introduced about two years ago, it cost about \$125.00. Now you can get them for about \$25.00 in single quantities. That's why we choose the TI DSP for our project.

THE DSP25 BLOCK DIAGRAM/ DESCRIPTION

The DSP25 is an inexpensive Digital Signal Processor that plugs into the 8 bit expansion port of an IBM PC or IBM compatible computer. It provides audio connections to a receiver or transceiver for operating digital modes in the HF or VHF bands. It also has an

8 bit TTL input/output port for interfacing to a Packet or all mode TNC. There is also a 16 bit I/O port on a 32 pin header connector to interface to a baby board which can contain a dual parallel DAC for connecting an X/Y tuning scope or other ancillary devices.

The DSP can replace the TNC's analog filters, fsk demodulator or tone encoder. It can also be used as a digital audio filter for CW mode, a digital signal analyzer and a digital oscilloscope within the audio range. FSK signals are processed and converted to a TTL level to the 8 bit I/O port or they can be converted to an RS232 level and transferred to the audio out port. The FSK signal can also be regenerated (eliminating 100% of the noise) and interfaced to a TNC's audio input (A to A connection).

The audio to audio connection simplifies the "hook up" and still provides the advantage of improved error performance. The DSP25 consist of four basic circuits, the PC Host interface, a Texas Instruments 40 mHz TMS320C25 Digital Signal Processor chip, 8k words of RAM, and a Texas Instruments TLC32044C Analog Interface chip. It's constructed on an IBM PC/XT compatible 10" expansion PC board and the analog/digital connections are accessible on the rear bracket/panel.

THE HOST INTERFACE

The PC Host interface decodes the PC address, passes data from the 8 bit PC bus via the buffers and latches to the 16 bit DSP bus. It provides handshaking between the PC and DSP, and by placing the DSP chip in hold mode, DMA (direct memory access) from the 8k RAM to the PC I/O port is possible. There is also a sequential address decoder which allows the PC to access the ram in two 4k word pages for loading binary files from a floppy or hard drive and for providing direct memory access for large data transfers.

THE ANALOG INTERFACE

The Analog Interface chip converts the audio or linear signal to digital data. It transmits the data on a receive serial communications port to the DSP chip. The DSP processes the data and returns it to the A/I chip via the transmit serial port. The A/I can be programmed for pass through mode and there are 3 gain steps available. The DSP pcb has filter chokes to reduce EMI interference to the receiver and a quad op-amp is used to boost the signal in either direction on the analog port.

SOFTWARE

The software for the DSP is still under development but we do have two working modems that are di-no-mite! The PKT modems are for packet and test results so far are very promising. We decided to work on the 300 baud modem first because the problems on H.F is causing the packeteers the most trouble. We have ran test using 45 baud RTTY and the PKT modem was very promising but the filters need to be retuned for the lower baud rate.

Here's a brief description

PKT SERIES MODEMS

The PKT series modem is computer software that is designed to operate on the PC compatible DSP25 Digital Signal Processor for 300 baud Packet Radio and ASCII modes. They where computer simulated and tested to obtain maximum noise rejection and the best possible error rate performance for Amateur and SWL applications.

Except for the analog interface and IO port, the block diagram on the next page is hypothetical and does not reflect an actual working circuit or electronic diagram. The modem filters and functional blocks are embedded in the software. Several functions can be changed or modified using the "Control Panel" software that is provided with each modem.

The Analog Input

The audio signal from an H.F. receiver/transceiver enters the analog interface chip and is converted to data. The data is sent to the DS Processor and it performs the mathematical functions (indicated by the blocks).

Pre-filtering

The first function is a sixth order Chebyshev bandpass filter. The filter reduces noise and improves the performance of the A.G.C. block. The data is then processed by the limiter which sets a maximum numeric limit. The data is then passed to the second sixth order filter which further reduces noise and pre-filters the signal for the frequency detection blocks.

FSK Decoding (The Frequency Detection Block)

Two fourth order Bowtie tone filters are separately tuned at the mark and space frequencies. The filters separate the energy in FSK signal. The signal or data is then rectified by generating positive numbers from the mark filter and negative numbers from space filter.

Post filtering

The numbers are further processed using a lowpass filter. It removes the high frequency components in the serial bit stream and further improves the signal to noise performance. Other mathematical routines include a threshold detector and hysteresis. The data is then passed as a serial bit stream to the I/O port or other functions. The modem also includes a carrier detect, an FSK oscillator and control logic which allows the user to setup various parameters using the Control Panel software.

OTHER PKTA/PKTB MODEM FUNCTIONS

Modem Parameters

The Carrier detect routine keys the FSK oscillator on and off as well as providing an output via the I/O port on DIN1. It also (by default) sets the AI chip in a loopback mode when no signal is detected. This allows the user to monitor the channel via an external speaker/amplifier during quiet channel conditions. The channel can also be monitored via the first and second prefilter which reduces the audio bandwidth and noise. The first and second prefilters can be used as a CW filter.

Audio to Audio connection

A parameter can be set which allows the user select the FSK oscillator only. This function provides an interface from the DSP to an external TNC's audio input and it regenerates the received signal with noise a free FSK generator. The TNC decodes the FSK using the improved signal to noise performance of the DSP. During a quiet channel (no packets) the FSK oscillator will be disabled, then the TNC can key the transmitter using the normal connection to the XMT key line for packet operation. If the monitor option was enabled and the regenerator disabled because no carrier was detected, the received channel can be monitored via the DSP using the full breakin capabilities of the software. The user can also use the audio oscillator to provide audio FSK to a transmitter's "mike" input. Because of the XMTR's low input level, a resistor divider network is needed to drop the audio level to the XMT

Audio to Digital connection

The Audio input to the DSP connects to the receiver's speaker or aux audio output. It can handle levels as high as 1 volts p to p however, overdriving of the DSP can damage it or cause poor error performance. The typical level should be about .3 to .7 volts RMS.

The TNC's TTL level serial data input is connected to the DSP's DOUT0 output. The FSK is demodulated by the DSP and the serial bit stream is sent to DOUT0. The TNC decodes packets or RTTY using the improved signal to noise performance of the DSP. DOUT1 is the inverted serial output.

The TNC's TTL level serial data output is connected to the DSP's I/O port DIN0. During transmit, the data from the TNC is switched to the DSP's FSK oscillator. The DSP's oscillator is connected to the transmitter's audio input using an attenuator network. This allows the user to implement the DSP's continuous phase, frequency shift oscillator .

DOUT 2 is a TTL level Carrier detect. It can be connected to a TNC to be used as an external carrier detect.

DOUT3 is a XMT key line and can be connected to some TNC's for keying the transmitter. This output is a TTL level output and requires a special circuit for transmitter keying.

TEST RESULTS

I conducted a test using two PK232's and an Icom R71 common receiver on 20 meters (the TNC's where in monitor mode). One PK232 was connected to the DSP card Via the external modem input on the rear apron. A modem formerly called P3020 (now PKTB) was loaded into the DSP from an IBM PC. The other "barefoot" TNC was connected to a Compaq Deskpro and both computers copied the text to a capture buffer. The time/date on both TNC's where set within a few seconds. A Radio Shack counter module #277-302 was connected to the carrier detect L.E.D. circuit. The threshold was adjusted for average strength packets.

HERE ARE MY RESULTS

Test #1

Both TNC's didn't copy very many packets. The band condition at that time was poor.

Test #2;

The band condition improved and 182 packets where counted. The PK232 copied 47 and the DSP/PK232 copied 116.

Test #3

Only 3 packets where copied on the barefoot PK232, on the other hand, the DSP copied 82 out of 202.

Test #4

There where 78 packets out of 487 for the PK232 and the DSP/PK232 copied 162.

As you can see the DSP, depending on the band conditions, did a much better job. The DSP makes a better FSK decoder because the filters where designed and simulated for a specific application (packet radio). If the circuit in the PK232 was simulated on a DSP the two units probably would have performed the same.

COPYING CW

The upgraded version of the PKT modems have a feature that allows the user to monitor the receivers audio through the FSK decoder's pre-filters. I used this setup to copy CW and weak carriers on 20 meters. I was able to pull out signals that where almost in-audible (about equal with the noise level). The second prefilter was selected. The first prefilter response was about equal to a 4 pole BP chebychev. When I tuned to a stronger signal, I tuned across the filters bandpass (about 400 hz) in noticed as I reach the lower or upper limit of the passband, the signal dissapeared as if the filter had infinite stopband response.

Conclusion

The DSP is a newcomer in the HF digital world. More software and better modems that can handle the hostile HF environment are needed. Because the DSP is versitle modems can be developed, simulated

and easily loaded. It will allow developers to try other modulation schemes that can greatly enhance digital communications on H.F.

Date: 02 Apr 93 17:53:26 GMT
From: microsoft!wingnut!laurahal@uunet.uu.net
Subject: ARRL living in the past? (was Re: motive ...)
To: info-hams@ucsd.edu

In article <jfhC4onx8.4I4@netcom.com> jfh@netcom.com (Jack Hamilton) writes:
>the ARRL performs valuable services. It is unfortunate, though, that the
>ARRL is so regressive in its social policies. Three examples:

>

>1) The ARRL has refused, according to several sources, to accept an ad for
> the Lambda Amateur Radio Club, a group of gay and lesbian amateur radio
> operators. I've heard different stories about what the ARRL did and
> said and what LARC did and said, but the fact remains that no ad has
> appeared. Has the question made it to the ARRL board, or was this
> decided by the staff?

The only thing sadder than this decision is the reaction on USENET.

The ARRL support various interest groups based on criteria that have nothing to do with ham radio. This one sounds uncomfortably like 'can't have those god-damned preverts polluting *our* hobby'. If it isn't, I'd like to hear some answers.

...laura, VE7MCR

P.S. I'd like to learn more about LARC. Email to laurahal@microsoft.com, please.

Date: Sat, 3 Apr 1993 04:13:56 GMT
From: sdd.hp.com!spool.mu.edu!darwin.sura.net!rouge!jab0684@network.UCSD.EDU
Subject: CTCSS usage on an Azden PCS 4000
To: info-hams@ucsd.edu

Greetings, I'm posting on behalf of N50CH, who has an Azden PCS 4000, 2 meter mobile rig. He believes that this rig does at least have pl tone encode and perhaps decode as well, but he does not have the manual for it.

Any information on how to use these features on this rig would be appreciated.

73 DE kb5udf

kb5udf@ucs.usl.edu

Date: Fri, 2 Apr 1993 19:07:59 GMT
From: swrinde!zaphod.mps.ohio-state.edu!uwm.edu!linac!att!att-out!cbnews!dara@network.UCSD.EDU
Subject: Kantronics vs MFJ Opinions?
To: info-hams@ucsd.edu

In article <gtaylor.100@tamu.edu>, gtaylor@tamu.edu ("Gregory S. Taylor") writes:
> Have not had anything to do with RTTY since it was done with mechanical
> printers but am now getting interested in that and other digital modes.
>
> Am soliciting opinions as to how the KAM TNC stacks up against the MFJ 1278.
> And, if someone wanted to put in their two cents about the PK 232 I'd read
> it but that looks like its getting out of my price range.
>
> Thanks and 73

For what it's worth, I'm very happy with my KAM (ver 5)
I use it mostly on packet, and for copying cw dx operators who exceed
my comfortable speed (20+). I've operated RTTY in a contest (CQ-WE)
and it works well with my ts440 using the rig's 500 Hz filter. I think
the RTTY tones are more accurate than the pk232. I often monitor vhf
packet while using the hf port --that's a great plus. If you want to
use AMTOR (I'm not a fan) you will have to experiment with transmit
delay times. The pk232 may have more flexibility there. The pk232
may be better for short wave listeners, it has a signal identifier mode
It's your money, so you get to choose.
My KAM adds to my operating pleasure -- that's what it's all about.
(ps I once tried to copy cw with an MFJ and I couldn't get it to work
--one data point!)
Enjoy Shel WA2UBK

Date: Fri, 02 Apr 93 23:19:30 MST
From: swrinde!zaphod.mps.ohio-state.edu!cs.utexas.edu!asuvax!ennews!stat!aznet!dan@network.UCSD.EDU
Subject: Request: Modification instructions for Radio Shack HTX-202.
To: info-hams@ucsd.edu

UMASP@MAINE.MAINE.EDU writes:

> I am making this post for my nephew who doesn't have access to Netnews.
> He currently has a Radio Shack HTX-202, 2-meter radio and was looking to
> make modifications. If anyone has any instructions for modifying the

>
> Thank you,
>
> George Newell
> umasp@maine.maine.edu
> umasp@maine.bitnet

There are *NO MODS* for the HTX-202, the previous mentions of mods were proven to be false. A friend of mine is a technician for Tandy service and he services that particular radio, he has found no way of modifying it as of yet.

Dan

Internet: dan@aznet.stat.com
Ax.25: n7mrp@n7mrp.az.usa.na
Voice: (602) 902-8022

Date: Fri, 2 Apr 1993 13:07:16 GMT
From: sdd.hp.com!spool.mu.edu!uwm.edu!linac!att!att-out!cbnewsj!
k2ph@network.UCSD.EDU
Subject: RFD [rec.radio.amateur reorg]
To: info-hams@ucsd.edu

Date: Sat, 03 Apr 93 05:40:45 GMT
From: usc!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: SPACE BULLETIN 012 ARLS012
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AS91
QST DE W1AW
SPACE BULLETIN 012 ARLS012
FROM ARRL HEADQUARTERS NEWINGTON, CT
APRIL 2, 1993
RELAYED BY KB8NW/OBS & BARF-80 BBS
TO ALL RADIO AMATEURS

SB SPACE ARL ARLS012
ARLS012 STS-56 UPDATE

SHUTTLE MISSION STS-56 IS SCHEDULED TO LAUNCH FROM KENNEDY SPACE CENTER ON APRIL 6 AT 0532 UTC OR 1:32 AM EDT. CALL SIGN FOR VOICE QSOS WILL BE KB5AWP. USE W5RRR-1 FOR PACKET. WORLDWIDE VOICE AND PACKET DOWNLINK FREQUENCY IS 145.55 MHZ. VOICE UPLINK FREQUENCIES ARE 144.91, 144.93, 144.95, 144.97 AND 144.99 MHZ. VOICE UPLINKS IN EUROPE ARE 144.70, 144.75 AND 144.80 MHZ. PACKET UPLINK IS 144.49 MHZ. LISTEN TO GODDARD AMATEUR RADIO CLUB STATION WA3NAN FOR REBROADCAST OF SHUTTLE COMMUNICATIONS ON 3.860, 7.185, 14.295, 21.395, 28.650 AND 147.45 MHZ.

STUDENTS FROM SEVENTEEN SCHOOLS AROUND THE WORLD WILL GET THE CHANCE FOR A SCHEDULED QSO WITH THE ASTRONAUTS. ALL HAMS ARE REMINDED TO BE TOLERANT AND COOPERATIVE OF EACH OTHER'S USE OF FREQUENCIES DURING SAREX ACTIVITIES. SAREX OPERATORS SHOULD LISTEN BEFORE TRANSMITTING, AND ONLY TRANSMIT WHEN THE SHUTTLE IS WITHIN RANGE. OTHER USERS SHOULD REMEMBER THAT PASSES ARE SHORT AND OCCUR ONLY A FEW TIMES EACH DAY OF THE MISSION. ANY REPORTS OF ACTUAL INTERFERENCE EXPERIENCED ON SHUTTLE FREQUENCIES BY SAREX PARTICIPANTS AND OTHER USERS, AND BACKGROUND INFORMATION, SHOULD BE SENT TO ARRL.

MONITOR W1AW FOR OTHER DETAILS INCLUDING KEPLERIAN ELEMENTS.
NNNN

Date: Sat, 03 Apr 93 05:40:47 GMT
From: swrinde!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: SPACE BULLETIN 013 ARLS013
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AS92
QST DE W1AW
SPACE BULLETIN 013 ARLS013
FROM ARRL HEADQUARTERS NEWINGTON, CT
APRIL 2, 1993
RELAYED BY KB8NW/OBS & BARF-80 BBS
TO ALL RADIO AMATEURS

SB SPACE ARL ARLS013
ARLS013 STS-56 ELEMENTS

THE LATEST PRELAUNCH KEPELERIAN ELEMENTS FOR STS-56 FOLLOW.

```
1 00056U          93 96.29075346 .00055200 00000-0 16200-3 0    56
2 00056 57.0020 177.4323 0011289 286.7156 73.2672 15.91759473    20
```

```
SATELLITE:          STS-56
CATALOG NUMBER:      00056
EPOCH TIME:          93096.29075346 ( 6 APR 93 06:58:10 UTC)
ELEMENT SET:         JSC-005
INCLINATION:         57.0020 DEG
RA OF NODE:          177.4323 DEG      SPACE SHUTTLE FLIGHT STS-56
ECCENTRICITY:         .0011289        PRELAUNCH KEPLERIAN ELEMENTS
ARG OF PERIGEE:       286.7156 DEG     LAUNCH: 6 APR 93 05:32 UTC
MEAN ANOMALY:         73.2672 DEG
MEAN MOTION:          15.91759473 REV/DAY      G. L. CARMAN
DECAY RATE:           5.52000E-04 REV/DAY SQ   NASA JOHNSON SPACE CENTER
EPOCH REV:            2
```

NNNN

Date: Sat, 3 Apr 93 01:26:19 GMT
From: swrinde!cs.utexas.edu!geraldo.cc.utexas.edu!slcs.slb.com!leo.asc.slb.com!
sjasca4!jones@network.UCSD.EDU
Subject: UHF broadcasting. (was: DESPERATE...NEED TO KNOW FACTS CONCERN)
To: info-hams@ucsd.edu

David Adams (dadams@cray.com) wrote:
: But then what does it take to get the appropriate license?

It is a non-trivial process. Oodles of obstacles.

: Given all the restrictions againsts Hams broadcasting or against all
: buisness communications, I would think it might be worth while for
: a ham club, say, to obtain the license to broadcast on some UHF
: channel. (After all most UHF channels lie dormant or unused in most
: cities.) It could be used for PR, business type announcements,
: politics, and any thing else hams would like to use it for, that
: otherwise would be prohibited. There certainly ought to be enough
: tallent to run the thing in the ham community. We wouldn't have
: to hire any technical people. We undoubtedly could run it at a
: small fraction of the cost required by comercial stations. And,
: hey, we would even be allowed to raise money! (Make money if it
: is not a not-for-profit org.)

Hams might have the talent, but only a small fraction of them (I'm one) have the proper licenses.

As for "small fraction of the cost", let's guess, for the sake of argument, that we spend 5% of what a commercial VHF station spends to set up to broadcast. Let's see, 5% of \$50,000,000 (very conservative) is still \$2,500,000. And you thought ham equipment was expensive! ; -)

By the way, you're not going to get away with trying to use a lot of the things that hams use on the air. The FCC keeps a pretty close eye on the broadcast stations. Plus, since all of the commercial stations have all of the fancy monitoring equipment, temptation for the engineers to check up on other stations is too great to resist (ask me how I know ;-) so you'd better use equipment that can put out signals meeting all of the very stringent requirements (plus the commercial stations are going to be very hostile towards an "amateur" station, so they'll be monitoring you a lot more than they would each other).

```
: --David C. Adams Statistician Cray Research Inc. dadams@cray.com
      ^^^^^^^^^^^^^
```

I'm sure the math won't be beyond you, David! ;-) ;-) ;-) ;-)

73,
Clark

— —

Disclaimer: The opinions expressed above are mine and not those of Schlumberger because they are NOT covered by the patent agreement!

Phone: (602) 345-3638 RF: N7RPQ
Snail: Clark Jones, Schlumberger Technologies, 7855 S. River Pkwy #116, Tempe,
AZ 85284-1825

```
Date: (null)
From: (null)
Hear!  Hear!
```

Please count me among the adamantly opposed as well. The reason given for the proposed reorganization was that some people found it impossible to follow the various threads on this newsgroup because of the volume of traffic. I don't know how this works for people on mailing lists, but those of us with reasonably modern newsreaders have no trouble following exactly what we want to follow. Please don't subject us to this monstrosity

just because either your news reader or your mail reader doesn't
give you the chance to read only what you want.

Seems to me you're trying to fix the wrong thing.

--

Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!k2ph
AT&T Bell Laboratories | Internet: k2ph@mtdcr.att.com
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

Date: Fri, 2 Apr 1993 16:20:16 GMT
From: usc!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!
udecc.engr.udayton.edu!blackbird.afit.af.mil!jmill@network.UCSD.EDU
To: info-hams@ucsd.edu

References <91021@hydra.gatech.EDU>, <1993Apr1.225613.21494@inmet.camb.inmet.com>,
<jfhC4uFH2.1pD@netcom.com>c.engr
Subject : Re: Callsign processing time

In article <jfhC4uFH2.1pD@netcom.com> jfh@netcom.com (Jack Hamilton) writes:
>Mine arrived in the mail today (KD6TTL). I took the test on January 31.

^^^ You wouldn't happen to be a digital

logic whiz, would you? ;-)

73, Jeff

--

Jeff Miller, NH6ZW/N8, AFA1HE (ex WD6CQV, AFA8JM, AFA1D0)
AFIT School of Engineering, Wright-Patterson AFB, OH
"This class (Formal Methods in SW Engineering) redefines the term "auger
in" -- nameless AFIT student. Help eliminate FOD in our lifetime.

End of Info-Hams Digest V93 #414
